REMARKS

Applicant has received and carefully reviewed the Office Action of the Examiner mailed July 24, 2008. Favorable consideration of the following remarks is respectfully requested.

The Examiner states that Applicant's response of March 5, 2008 was not fully responsive and asserts there no support in the original filing for "the connector blends the first flexibility with the second flexibility" as claim 7 recites. Applicant respectfully disagrees.

The full claim, including the dependencies:

1. (previously presented) A medical device, comprising:

an elongate shaft including a longitudinally extending proximal section having a distal end, a longitudinally extending distal section having a proximal end, and a connector connecting the proximal section and the distal section of the elongate shaft, wherein the connector is fixedly secured to both the proximal section and the distal section, securing the distal end of the proximal section with the proximal end of the distal section; and

a filter coupled to the shaft.

2. (original) The medical device of claim 1, wherein the proximal section comprises a first material and the distal section comprises a second material that is different from the first material.

6. (original) The medical device of claim 2, wherein the first material has a first flexibility and the second material has a second flexibility that is more flexible than the first flexibility.

7. (original) The medical device of claim 6, wherein the connector blends the first flexibility with the second flexibility.

Clearly, claim 7 recites two different materials having two different flexibilities (mechanical property) that are joined together to blend the two flexibilities (or transition between the mechanical property of each material). This can be accomplished in multiple ways, as disclosed in the specification. The Compact Oxford English Dictionary defines "blend" to mean "mix and combine with something else" (different elements). In this case, the elements being combined are the mechanical properties of the two materials.

In the previous response, Applicant cited page 17, lines 17-23 as an example of support for this blending. This particular passage was in reference to Figure 3, but claim 7 does not apply solely to the embodiment of Figure 3. This portion of the specification was cited to show that some form of support existed. Additional support exists within the original disclosure and will be discussed herewith. The Examiner suggested that "the connector" be replaced with "the tapered overlapping portion ends". However, claim 7 also applies to Figure 5, which does not show the aforementioned tapered overlapping portion ends, but instead shows a butt joint joined by a connector.

Support for "the connector blends the first flexibility with the second flexibility" can be drawn from a number of locations:

Page 6, lines 14-16:

"A partial cross-sectional side view of device 10 is shown in Figure 2. Here it can be seen that shaft or filter wire 12 may include a proximal section 26, a distal section 28, a connector 30 for coupling proximal and distal sections 26/28, and a covering or sheath 32."

Page 9, lines 11-19:

"Proximal section 26 and/or distal section 28 may include one or more tapered regions. For example, distal section 28 may include tapered regions 36 and 38. Between tapered regions 36/38 there may be a constant diameter region 40... In some embodiments, these tapers 36/38 and/or constant diameter region 40 are adapted and/or configured to obtain a transition in stiffness, and provide a desired flexibility characteristic." (emphasis added – the taper is not required)

Page 14, line 5-13:

"Figure 3 illustrates a cross-sectional side view of connector 30, connecting proximal section 26 and distal section 28. Connector 30 may comprise a tubular structure such as a hypotube as shown, a coiled wire, or any other suitable structure… It should be understood by those of skill in the art and others that a broad variety of materials, dimensions, and structures can be used for connector 30, dependent upon the desired characteristics and structures being connected."

Page 17, lines 1-9 and line 16 to Page 18, line 7:

"To manufacture filter wire 12, the ends 64/66 of the proximal and distal guidewire 26/28 may be ground to form a desired shape. For example, Figures 3 and 4 illustrate that ends 64/66 may be ground to include a taper. In the tapered embodiments illustrated in Figures 2 – 4, the ends 64/66 may be tapered or otherwise formed to have a mating geometry that gradually decreases in cross sectional area toward the middle of connector 30. The tapered overlapping portion may define a uniform or a non-uniform transition of the sections 26/28, depending on the transition characteristics desired. For example, the end sections 26/28 may be linearly tapered as shown, tapered in a curvilinear fashion, or tapered in a step-wise fashion."

"This tapered arrangement may be desirable, for example, by allowing the flexibilities of proximal section 26 and distal section 28 to be blended. For example, proximal section 26 may comprise a first material having a first flexibility and distal section 28 may comprise a second (differing) material having a second flexibility. By overlapping ends 64/66 the differing flexibilities, the transition between flexibility can be made to be more gradual. The overlapping joint, thus, blends the stiffness of proximal section 26 and distal section 28 by combining the properties of each end section 64/66 making up the cross section of the overlapping joint. Thus, the joint forms a flexibility transition region that has a relative flexibility that is between the flexibility of the proximal section 26 and the flexibility of the distal section 28.

To assemble filter wire 12, connector 30 can be positioned over the ends 64/66 of the proximal and distal sections 26/28 as shown in Figure 3. The proximal and distal sections 26/28 and connector 30 may be bonded, welded (e.g., resistance or laser welded), soldered, brazed, or otherwise connected by a suitable technique depending on the material selected for each component."

Page 18, lines 19-21:

"Alternatively, the ends 64/66 and connector 30 may be crimped together or may be sized to establish a mechanical connection, such as an interlocking or friction fit therebetween."

Page 19, line 17 to Page 20, line 3:

"The embodiment of Figure 5 is similar to the embodiment of Figures 3 and 4, except that connector 130 between proximal section 126 and distal section 128 does not utilize an overlapping joint, but rather uses a butt joint. The embodiment of Figure 6 is also similar to the previously shown embodiments, except that connector 230 between proximal section 226 and distal section 228 utilizes an overlapping joint that is not tapered. In some embodiments, ends 264/266 can be configured to interlock. Ends 264/266 may interlock in a number of manners such as by including mechanical interlocking features, such as bulbous structures, grooves, ridges, roughened surfaces, etc. Collectively, Figures 3-6 illustrate that the precise connection between proximal and distal sections 26/28 can vary to include any suitable arrangement."

Page 24, lines 15-17 characterizes another embodiment:

"Once connected, connector 330 and proximal and distal sections 326/328 can be worked or formed to provide desired characteristics, such as shape or flexibility characteristics."

All of these particular passages combine to support various aspects of the claimed invention. Quite simply, the two sections that are joined by "the connector" may comprise different materials with different mechanical properties. Those mechanical properties are joined together in transition by the connector to "blend" the properties from the first section to the second section. The individual sections and materials are not be physically "combined" to blend their properties. A third element (the connector) is required to "join" the materials, creating a transition zone where the properties of both materials apply ("blending" the properties – i.e. flexibility). The configuration of the connection or joining defines the transition. If tapers are placed next to adjacent each other, the properties of the first material will decrease while the properties of the second material increase. This transition does not occur simply because the two materials are placed adjacent to each other. A physical connection is created to effectively "blend" the properties of the two adjacent materials. While the word "blend" is explicitly stated on page 17 with regard to the tapered embodiment,

the same principles inherently apply regardless of the specific configuration. For example, in the butt joint of Figure 5, there is not an instantaneous transition of properties where the ends of the two sections are adjacent – the connector works in conjunction with the first and second materials to provide a transition from the first to the second ("blend" the properties).

Applicant believes there is sufficient support within the original specification for the currently pending claims. Withdrawal of the rejection is respectfully requested.

Reexamination and reconsideration are requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is also respectfully requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Lawrence Wasicek

By his attorney,

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